AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior versions, and listings, of the claims in this application:

IN THE CLAIMS

1. (Previously Presented) A method comprising:

at a radio link control/medium access control protocol layer, receiving at least one logical link control packet data unit from an upper protocol layer, wherein each logical link control packet data unit belongs to a certain packet data protocol context associated with logical link control connection information and wherein quality of service information relating to the logical link control connection information is defined for the certain packet data protocol context,

reordering each logical link control packet data unit at the radio link control/medium access control protocol layer according to a relative urgency of transmission of the logical link control packet data unit with respect to a buffered logical link control packet data unit based on at least the logical link control connection information and the quality of service information, and

delivering the received logical link control packet data unit and the buffered logical link control packet data unit further from the radio link control/medium access control protocol layer in reordered order,

wherein the method is performed by a mobile station to transfer user data in a wireless packet data network.

2-82. (Canceled).

83. (Previously Presented) A method according to claim 1, further comprising, after receiving each logical link control packet data unit, determining whether the radio link control/medium access control protocol layer already comprises at least one buffered logical link control packet data unit.

84. (Previously Presented) A method according to claim 1, wherein the logical link control connection information of the received logical link control packet data unit and the logical link control connection information of the buffered logical link control packet data unit are different.

85. (Previously Presented) A method according to claim 1, wherein the logical link control connection information of the received logical link control packet data unit and the logical link control connection information of the buffered logical link control packet data unit are similar and the quality of service information of the received logical link control packet data unit and the quality of service information of the buffered logical link control packet data unit are different.

86. (Previously Presented) A method according to claim 1, further comprising, in response to the logical link control connection information of the received logical link control packet data unit and the logical link control connection information of the buffered logical link control packet data unit being similar and the quality of service information of the received logical link control packet data unit and the quality of service information of the buffered logical link control packet data unit being quite similar, changing the logical link control connection information of the received logical link control packet data unit.

87. (Previously Presented) A method according to claim 86, wherein the received logical link control packet data unit carries voice data and the buffered logical link control packet data unit carries video data.

88. (Previously Presented) A method according to claim 1, wherein at the upper protocol layer the logical link control connection information is used as internal logical link control information in order to handle the logical link control packet data unit with appropriate quality of service characteristics.

89. (Previously Presented) A method according to claim 1, wherein the received logical link control packet data unit at the radio link control/medium access control protocol layer

comprises a logical link control header which indicates at least one service access point indicator at the upper protocol layer and the radio link control/medium access control protocol layer reads the indicated service access point indicator.

90. (Previously Presented) A method according to claim 89, wherein the logical link control header further indicates a window number specific to the service access point indicator at the upper protocol layer and the window number is incremented by one when the upper protocol layer transmits the logical link control packet data unit to the radio link control/medium access control protocol layer.

91. (Previously Presented) A method according to claim 90, wherein the upper protocol layer receives each logical link control packet data unit from the radio link control/medium access control protocol layer in a sequence order according to the window number.

92. (Previously Presented) A method according to claim 1, wherein the logical link control connection information is a service access point indicator.

93. (Previously Presented) A method according to claim 86, wherein the logical link control connection information is changed to be an unused service access point indicator point indicator.

94. (Previously Presented) A method according to claim 1, wherein delivering further comprises buffering the received logical link control packet data unit into a packet data transfer queue for a period of time a current logical link control packet data unit delivery is on-going.

95. (Previously Presented) A method according to claim 1, wherein delivering further comprises, after ending transmission of a current logical link control packet data unit carrying a higher relative urgency of transmission, at the radio link control/medium access control protocol layer starts a timer with a predetermined timeout value and after the timer expires, the radio link control/medium access control protocol layer initiates transmission of a logical

link control packet data unit carrying a lower relative urgency of transmission if the radio link control/medium access control protocol layer has not received a new logical link control packet data unit message carrying a higher relative urgency of transmission during the predetermined timeout value.

96. (Previously Presented) A method according to claim 1, wherein delivering further comprises, during transmission of the current logical link control packet data unit carrying the lower relative urgency of transmission, interrupting the transmission by the radio link control/medium access control protocol layer in response to the radio link control/medium access control protocol layer receiving a new logical link control packet data unit carrying a higher relative urgency of transmission, and initiates transmission of the new logical link control packet data unit carrying the higher relative urgency of transmission.

97. (Previously Presented) A method according to claim 96, wherein the logical link control packet data unit carrying the lower relative urgency of transmission is buffered by generating a logical link control packet data unit border into a radio link control data block.

98. (Previously Presented) A method according to claim 1, wherein the wireless packet data network is a general packet radio service Radio Service network.

99. (Previously Presented) A method according to claim 1, wherein the network element is one of a Serving General Packet Radio Support Node, a base station controller, mobile switching center and

where a packet control unit comprises a radio link control/medium access control unit.

100. (Previously Presented) A method according to claim 1, wherein the quality of service information relates to a logical link control mode defined in the upper protocol layer.

101. (**Currently Amended**) A mobile station comprising

a transceiver configured to transmit and receive packet data messages,

a controller configured to generate packet ~~date~~ data protocol context activation messages informing the network about the activation of packet ~~date~~ data protocol contexts for transmission of at least one logical link control packet data unit comprising user data, each packet ~~date~~ data protocol context defines logical link control connection information relating to an urgency of transmission,

a layered transmission protocol arrangement comprising a radio link control/medium access control protocol layer entity as well as higher protocol layer entities, of which the radio link control/medium access control protocol layer entity is configured to receive from at least one upper protocol layer logical link control packet data units,

wherein each logical link control packet data unit belongs to a certain packet ~~date~~ data protocol context associated with logical link control connection information and wherein quality of service information relating to the logical link control connection information is defined for the certain packet ~~date~~ data protocol context,

the radio link control/medium access control protocol entity is configured to reorder each received logical link control packet data unit from at least one upper protocol layer according to a relative urgency of transmission of logical link control packet data unit with respect to a buffered logical link control packet data unit based on at least the logical link control connection information and the quality of service information, and

the radio link control/medium access control protocol entity is configured to deliver the received logical link control packet data unit and the buffered logical link control packet data unit further from the radio link control/medium access control protocol layer in reordered order.

102. (Previously Presented) A mobile station according to claim 101, wherein the mobile station is configured, in response to receiving a logical link control packet data unit, to determine whether the radio link control/medium access control protocol layer entity already comprises at least one buffered logical link control packet data unit.

103. (Previously Presented) A mobile station according to claim 101, wherein the logical link control connection information of the received logical link control packet data unit and

the logical link control connection information of the buffered logical link control packet data unit is different.

104. (Previously Presented) A mobile station according to claim 101, wherein the logical link control connection information of the received logical link control packet data unit and logical link control connection information of the buffered logical link control packet data unit are similar and the quality of service information of the received logical link control packet data unit and the quality of service information of the buffered logical link control packet data unit are different.

105. (Previously Presented) A mobile station according to claim 101, where the mobile station is configured, in reponse to the logical link control connection information of the received logical link control packet data unit and the logical link control connection information of the buffered logical link control packet data unit being similar and the quality of service information of the received logical link control packet data unit and the quality of service information of the buffered logical link control packet data unit being quite similar, to change the logical link control connection information of the received logical link control packet data unit.

106. (Previously Presented) A mobile station according to claim 105, wherein the received logical link control packet data unit carries voice data and the buffered logical link control packet data unit carries video data.

107. (Previously Presented) A mobile station according to claim 101, wherein at the upper protocol layer entity is configured to use the logical link control connection information as an internal logical link control information in order to handle the logical link control packet data unit with appropriate quality of service characteristics.

108. (Previously Presented) A mobile station according to claim 101, wherein the received logical link control packet data unit at the radio link control/medium access control protocol layer entity comprises a logical link control header which indicates at least a service

access point indicator at the upper protocol layer entity and the radio link control/medium access control protocol layer entity is configured to read the service access point indicator.

109. (Previously Presented) A mobile station according to claim 108, wherein the logical link control header further indicates a window number specific for the service access point indicator at the upper protocol layer entity and the window number is incremented by one when the upper protocol layer entity transmits the logical link control packet data unit to the radio link control/medium access control protocol layer entity.

110. (Previously Presented) A mobile station according to claim 109, wherein the upper protocol layer entity receives each logical link control packet data unit from the radio link control/medium access control protocol layer entity in-sequence order according to the window number.

111. (Previously Presented) A mobile station according to claim 101, wherein the logical link control connection information is a service access point indicator.

112. (Previously Presented) A mobile station according to claim 105, wherein the logical link control connection information is changed to be an unused service access point indicator.

113. (Previously Presented) A mobile station according to claim 101, wherein the mobile station further comprises a buffer configured to buffer the received logical link control packet data unit into a packet data transfer queue for a period of time while a current logical link control packet data unit delivery is on-going.

114. (Previously Presented) A mobile station according to claim 101, wherein the mobile station further comprises a timer with a predetermined timeout value configured to start after ending transmission of the current logical link control packet data unit carrying the higher relative urgency of transmission.

115. (Previously Presented) A mobile station according to claim 101, wherein the radio link control/medium access control protocol layer entity is configured to interrupt a transmission of a current logical link control packet data unit carrying a lower relative urgency of transmission in response to receiving a new logical link control packet data unit carrying a higher relative urgency of transmission during the transmission.

116. (Previously Presented) A mobile station according to claim 115, wherein the radio link control/medium access control protocol layer entity is configured to buffer the logical link control packet data unit carrying the lower relative urgency of transmission by generating a logical link control packet data unit border into a radio link control data block.

117. (Previously Presented) A mobile station according to claim 101, wherein the wireless packet data network is a general packet radio service network.

118. (Previously Presented) A mobile station according to claim 101, wherein the quality of service information relates to logical link control mode defined in the upper protocol layer entity.

119. (**Currently Amended**) A network element comprising:

a controller configured to generate packet ~~date~~ data protocol context activation messages configured to inform a network about activation of packet ~~date~~ data protocol context for user data transmission,

a layered transmission protocol arrangement comprising a radio link control/medium access control protocol layer entity and higher protocol layer entities,

where the radio link control/medium access control protocol layer entity is configured:

to receive logical link control packet data units from at least one upper protocol layer wherein each logical link control packet data unit belongs to a certain packet ~~date~~ data protocol context associated with logical link control connection information and wherein quality of service information relating to the logical link control connection information is defined for the certain packet ~~date~~ data protocol context,

to reorder each received logical link control packet data unit from at least one upper protocol layer according to a relative urgency of transmission of the logical link control packet data unit with respect to a buffered logical link control packet data unit based on at least the logical link control connection information and the quality of service information, and

to deliver the received logical link control packet data unit and the buffered logical link control packet data unit further from the radio link control/medium access control protocol layer in reordered order.

120. (**Currently Amended**) A network element according to claim 119, wherein the controller is further configured to receive an uplink temporary block flow and, in response to receiving the uplink temporary block flow, to configure the packet ~~date~~ data protocol context activation messages.

121. (Previously Presented) A network element according to claim 119, wherein the controller is further configured to determine, during reception, whether the logical link control packet data units are received in-sequence order according the logical link control connection information of The logical link control packet data units.

122. (Previously Presented) A network element according to claim 119, wherein after receiving each logical link control packet data unit, the network element is configured to determine whether the radio link control/medium access control protocol layer entity already comprises at least one buffered logical link control packet data unit.

123. (Previously Presented) A network element according to claim 119, wherein the logical link control connection information of the received logical link control packet data unit and the logical link control connection information of the buffered logical link control packet data unit are different.

124. (Previously Presented) A network element according to claim 119, wherein the logical link control connection information of the received logical link control packet data

unit and the logical link control connection information of the buffered logical link control packet data unit are similar and the quality of service information of the received logical link control packet data unit and the quality of service information of the buffered logical link control packet data unit are different.

125. (Previously Presented) A network element according to claim 119, wherein the network element is further configured, in response to the logical link control connection information of the received logical link control packet data unit and the logical link control connection information of the buffered logical link control packet data unit being similar and the quality of service information of the received logical link control packet data unit and the quality of service information of the buffered logical link control packet data unit being quite similar, to change the logical link control connection information of the received logical link control packet data unit.

126. (Previously Presented) A network element according to claim 119, wherein at the upper protocol layer entity is configured to use the logical link control connection information as an internal logical link control information in order to handle the logical link control packet data unit with appropriate quality of service characteristics.

127. (Previously Presented) A network element according to claim 119, wherein the received logical link control packet data unit at the radio link control/medium access control protocol layer entity comprises a logical link control header which indicates at least a service access point indicator at the upper protocol layer entity and the radio link control/medium access control protocol layer entity is configured to read the service access point indicator.

128. (Previously Presented) A network element according to claim 127, wherein the logical link control header further indicates a window number specific for the service access point indicator at the upper protocol layer and the window number is incremented by one when the upper protocol layer entity transmits the logical link control packet data unit to the radio link control/medium access control protocol layer entity.

129. (Previously Presented) A network element according to claim 128, wherein the upper protocol layer entity is configured to receive each logical link control packet data unit from the radio link control/medium access control layer entity in-sequence order according to the window number.

130. (Previously Presented) A network element according to claim 119, wherein the logical link control connection information is a service access point indicator.

131. (Previously Presented) A network element according to claim 125, wherein the logical link control connection information is changed to be an unused service access point indicator.

132. (Previously Presented) A network element according to claim 119, wherein the network element further comprises a buffer configured to buffer the received logical link control packet data unit into a packet data transfer queue for a period of time while a current logical link control packet data unit delivery is on-going.

133. (Previously Presented) A network element according to claim 119, wherein the network element further comprises a timer with a predetermined timeout value configured to begin in response to ending transmission of a current logical link control packet data unit carrying a higher relative urgency of transmission.

134. (Previously Presented) A network element according to claim 119, wherein the radio link control/medium access control protocol layer entity is configured to interrupt the transmission of a current logical link control packet data unit carrying a lower relative urgency of transmission in response to receiving a new logical link control packet data unit carrying a higher relative urgency of transmission during the transmission of the current logical link control packet data unit.

135. (Previously Presented) A network element according to claim 134, wherein the radio link control/medium access control protocol layer entity is configured to buffer the logical

link control packet data unit carrying the lower relative urgency of transmission by generating a logical link control packet data unit border into a radio link control data block.

136. (Previously Presented) A network element according to claim 119, wherein the wireless packet data network is a general packet radio service network.

137. (Previously Presented) A network element according to claim 119, wherein the network element is one of the following network elements: a serving general packet radio support node, a base station controller, mobile switching center and a packet control unit comprising a radio link control/medium access control unit.

138. (Previously Presented) A network element according to claim 119, wherein the quality of service information relates to a logical link control mode defined by the upper protocol entity.

139. (**Currently Amended**) A method comprising:

at a radio link control/medium access control protocol layer, receiving at least one logical link control packet data unit from an upper protocol layer, wherein each logical link control packet data unit belongs to a certain packet ~~date~~ data protocol context associated with logical link control connection information and wherein quality of service quality of service information relating to the logical link control connection information is defined for the certain packet ~~date~~ data protocol context,

reordering each logical link control packet data unit at the radio link control/medium access control protocol layer according to a relative urgency of transmission of the logical link control packet data unit with respect to a buffered logical link control packet data unit based on at least the logical link control connection information and the quality of service information, and

delivering the received logical link control packet data unit and the buffered logical link control packet data unit further from the radio link control/medium access control protocol layer in reordered order,

wherein the method is performed by a network element of a wireless packet data network.